

# *Vapor Recovery Nozzles*

By next spring, the nozzles you use at gasoline stations will be noticeably different. The new nozzles will prevent harmful, pollution-causing vapors from escaping into the air.

## **What are Vapor Recovery Nozzles?**

Vapor recovery nozzles are used at the gas pump to help reduce air pollution. They capture the gasoline vapors that escape from automobile tanks when they are being refueled. The vapors are returned to the underground gasoline storage tank through special hoses and pipes.

The underground tank is also equipped with a vapor recovery system that works hand-in-hand with the vapor controls on the gasoline pump. This two-step vapor recovery process ensures efficient capture of gasoline vapors.

## **When will Vapor Recovery be in place here?**

Vapor recovery nozzles are already in use at several gasoline stations in Maryland. The Shell service station at the Maryland House rest stop on Interstate 95 currently employs vapor recovery nozzles. Many Amoco gasoline stations in the Baltimore and Washington areas are also equipped with vapor recovery nozzles.

By 1995, all 1500 gasoline service stations in the Baltimore-Washington area will have vapor recovery. Any new gasoline stations must have vapor recovery system in place by May of 1993. Large stations, like the Maryland House, will have them in place by November of 1993. Mid-sized stations --- those selling less than 100,000 and more than 10,000 gallons each month --- will have to have them in place a year later, and all others by November of 1995.

## **Is Vapor Recovery important to the quality of our air and the environment?**

Yes! The gasoline vapors from refueling are one of the largest sources of air pollution left to be controlled. Every time we fill up our gas tanks, the process of refueling allows hydrocarbons to escape into the air. Hydrocarbons are a major cause of ground-level ozone pollution, or smog. Neither the Baltimore nor the Washington metropolitan area meets the federal health standards for ozone air pollution. In addition, gasoline vapors contain toxic pollutants such as benzene, a known carcinogen.

## **Why is ozone pollution dangerous? Am I in danger?**

Ozone is a highly reactive chemical which irritates the respiratory system. The elderly, very young, and those with asthma or other respiratory problems are most at risk. On hot, sunny, high-ozone days, even healthy people will find it harder to breathe when they exercise outdoors.

### **Are there any other adverse effects from ozone pollution?**

Yes, ozone can damage crops, plants and other living things. Important crops such as soybeans and tobacco, as well as forests and garden plants, can be damaged by ozone. Ozone also degrades rubber and plastic products.

### **How effective is Vapor Recovery?**

Vapor recovery will remove about 95% of the vapors that escape when gasoline tanks are being refueled. Because some of the vapors become liquid again once they are returned to the underground gasoline tank, it is estimated that about three million gallons of gasoline will be saved each year in Maryland.

A typical mid-sized gasoline station selling approximately 10,000 gallons a day will remove about 20 pounds of hydrocarbons from the air each day, resulting in 20 tons less pollution each day in the Baltimore-Washington area.

### **Are there any special instructions to remember when using the Vapor Recovery Nozzle?**

Yes, please remember to:

- Make certain that the cap on the gasoline tank of your car is closed tightly. This will greatly reduce any leaking vapors.
- Don't "top off" your tank when using vapor recovery nozzles. Adding gasoline to the tank after the nozzle has clicked itself off overloads the vapor recovery system and may cause liquid leaks of gasoline.
- Avoid spilling gasoline when you refuel.